



A.D. 1804



N^o 2778.

S P E C I F I C A T I O N

OF

WILLIAM PETHER.

APPARATUS TO PROMOTE THE ESCAPE
OF SMOKE.

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Apparatus to Promote the Escape of Smoke.

PETHER'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, WILLIAM PETHER, of the Parish of Saint Michael, in the City of Bristol, Artist, send greeting.

WHEREAS His most Excellent Majesty King George the Third, by Letters
5 Patent under the Great Seal of Great Britain, bearing date at Westminster,
the Fourth day of August, in the forty-fourth year of His reign, gave and granted
unto me, the said William Pether, my executors, administrators, and assigns, His
special licence, full power, sole privilege, and authority that I, the said William
Pether, my executors, administrators, and assigns, and every of them, by myself
10 and themselves, or by my and their deputy or deputies, servants or agents, or such
others as I, the said William Pether, my executors, administrators, or assigns,
should at any time agree with, and no others, from time to time and at all times
thereafter during the term of fourteen years therein expressed, should and law-
fully might make, use, exercise, and vend my Invention of "**CERTAIN METHODS,**
15 **ON A NEW PRINCIPLE, EITHER FOR PREVENTING OR CURING SMOAKEY CHIMNIES,**"
within that part of the United Kingdom of Great Britain and Ireland called
England, the Dominion of Wales, and Town of Berwick upon Tweed, in such
manner as to me, the said William Pether, my executors, administrators, or
assigns, or any of them, should in my or their discretion seem meet; and that
20 I, the said William Pether, my executors, administrators, and assigns, should
and lawfully might have and enjoy the whole profit, benefit, commodity, and

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advantage from time to time coming, growing, accruing, and arising by reason of the said Invention, for and during the term of years therein mentioned, to have, hold, exercise, and enjoy the said licence, powers, privileges, and advantages therein-before granted unto me, the said William Pether, my executors, administrators, and assigns, for and during and unto the full end and term of 5 fourteen years from the date of the said Letters Patent next and immediately ensuing, and fully to be complete and ended according to the Statute in such case made and provided ; in which said Letters Patent is contained a provisoe as or to the effect following ; that is to say, that if I, the said William Pether, should not particularly describe and ascertain the nature of my said Invention, 10 and in what manner the same is to be performed, by an instrument in writing under my hand and seal, and cause the same to be inrolled in the High Court of Chancery within one calendar month next and immediately after the date of the said Letters Patent, that then the said Letters Patent, and all liberties and advantages whatsoever thereby granted, should utterly cease, determine, and 15 become void, anything therein-before contained to the contrary thereof in any-wise notwithstanding.

NOW KNOW YE, that in compliance with and agreeably to the true intent and meaning of the said provisoe in the said Letters Patent contained, I, the said William Pether, do, by this present instrument in writing under my hand 20 and seal, hereby declare that the following is a particular description of and ascertains the nature of my said Invention of “ Certain Methods, on a New Principle, for Preventing or Curing Smoakey Chimnies,” viz^t :

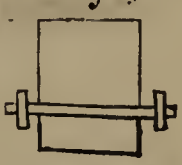
The new principle or Petherean system, as applied for the prevention or cure of smoakey chimnies, operates by placing a machine with valves either in or on 25 the top or sides of a chimney, in order that the rising smoak may push or force open the doors to escape into the air without being able to return, as usual, down the funnel of a chimney into the house by the pressure of heavy or windy air, or by the force of a hurricane ; for as the machine is well closed at the top, one or two of the valves therefore will always shut close when opposite to the 30 wind, and the others will instantly open to the leeward, whereby the smoak freely issues out and disperses into the atmosphere. On this principle certain methods have been invented by the patentee to cure all such smoakey chimnies as are built with proper sized funnels able to emit smoak in proportion of time as it arises from the fire, and that are constructed also with narrow or moderate 35 sized mouths at the fire-places, or such as may hereafter be constructed by any means to proportionate and adequate dimensions. But for such chimnies as

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are very wide below at the hearth, as or like kitchen chimnies, some improvement on an old principle, by alteration of contracters or concentrators of air, have been also invented to unite their effect with the machinery that is placed above, whereby fires are enabled to burn clearer, therefore, with less quantity of
 5 smoak, and by expanding the rarifying force more, increase its power to lift and drive up the sooty vapour with greater velocity through the valve apertures into the open element of air. Delineation and description of the upper valvelar machines called Petherons: Figure the 1st represents a front view of the valve machine. It is most eligible to be made of tin ware, constructed with four
 10 sides, and a top projecting over each side for the rain to slide off properly, the five parts to be solder'd together. To each of the four sides hangs a valve of a triangular form, suspended at the upper part by a strong brass wire put through two broad copper holes, which appear thus
 15 piece of brass wire to be fastened on at the two ends above the valve.



The copper bent rings or also the wire pivot or long between the holes, and also This part of the machine should be well executed to swing very free and easy by the least impulse of smoak, or by its own power of gravitation or pressure of the air. Over each valve is a long qudrangular hole, intended for part of the smoak to escape and
 20 prevent undulation of the valves when air arises or descends in the funnel after fire is extinguished. Under the lower angle of each is a projecting piece of tin fastened on to prevent the machine sliding down too deep into a chimney; four or five inches is sufficient to prevent wind from dislodging or blowing it away; let the machine fit close in, and be farther secured with mortar by a brick-
 25 layer. Figure 2nd is an angular view to shew two sides in perspective of a similar machine as above described. Figures 3^d, 4th, and 5th represent machines on the same new principle, only varying in the shape of the valves, and a triangular top, for the sake of variety and ornament, to the termination of the Petheron. Figure 6th and 7th have their valves suspended below to emit the
 30 smoak upwards to the bottom of each door; some lead or tin is added to make that part always gravitate and shut the upper close, or easily to open by the impulse of smoak. The valves suspend on wires, and appears thus



The other parts of the machine like Figures the first and second. Figure 8th is a valvelar machine to place into the side of a chimney, one to be
 35 on each side, constructed with four sides, a back, and a valve soldered on and suspended also like the former, the two first mentioned machines; they are to be fastened in by brickwork, and a flat stone or other material put and fastened

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close on with mortar to the top of a chimney to prevent vertical pressure of air. The aforesaid variety of Petherons are described to shew variety of certain methods on the new principle, and many more might be added if necessary to the public or the patentee. The machine first described is chiefly used and recommended, both from theory and experience, to be the best contrived for the 5 prevention or cure of smoakey chimnies. The said machines may be made of different metals, even of potter's clay or wood, or constructed of different shapes and sizes to put on in or to the sides of chimnies, but iron tin'd, usually called tin ware, is the very best and cheapest, the other sorts, shapes, and sizes, &c. only mentioned to prevent attempts chiefly to infringe on the property and licence of 10 the patentee by ignorant and dishonest adventurers. Contractors or concentrators of air operate by contracting the area of air at the fire-place of a chimney, thereby centering its force in, through, and near the fire-place with windy activity, to enliven or increase it to any degree of heat, diminish smoak, and give energy to the expansive power of the element of fire. Figure the 1st, 15 called an entivener, made of tin ware to fit close to the jambs and mantle of a fire-place. Figure 2^d is called an inflamer, to fit in close to the inner sides and top of the entivener. This serves as a blower to the fire. Figure the 3^d to put close in to the sides and top of the inflamer only when the fire is to be put out. It may be called therefore an extinguisher. Figure 4th shews the form 20 of a foot, six in number, for the apparatus to stand firm. Figure the 5th shews the three parts put close together as they stand before the front of a chimney fire-place, may easily be applied or taken away.

In witness whereof, I, the said William Pether, have hereunto set my hand and seal, this Twenty-eighth day of August, in the year of our Lord 25 One thousand eight hundred and four, and in the forty-fourth year of the reign of our Sovereign Lord George the Third, of the United Kingdom of Great Britain and Ireland King, Defender of the Faith.

WM PETHER. (L.S.)

Sealed and delivered (being first duly
stampt) in the presence of

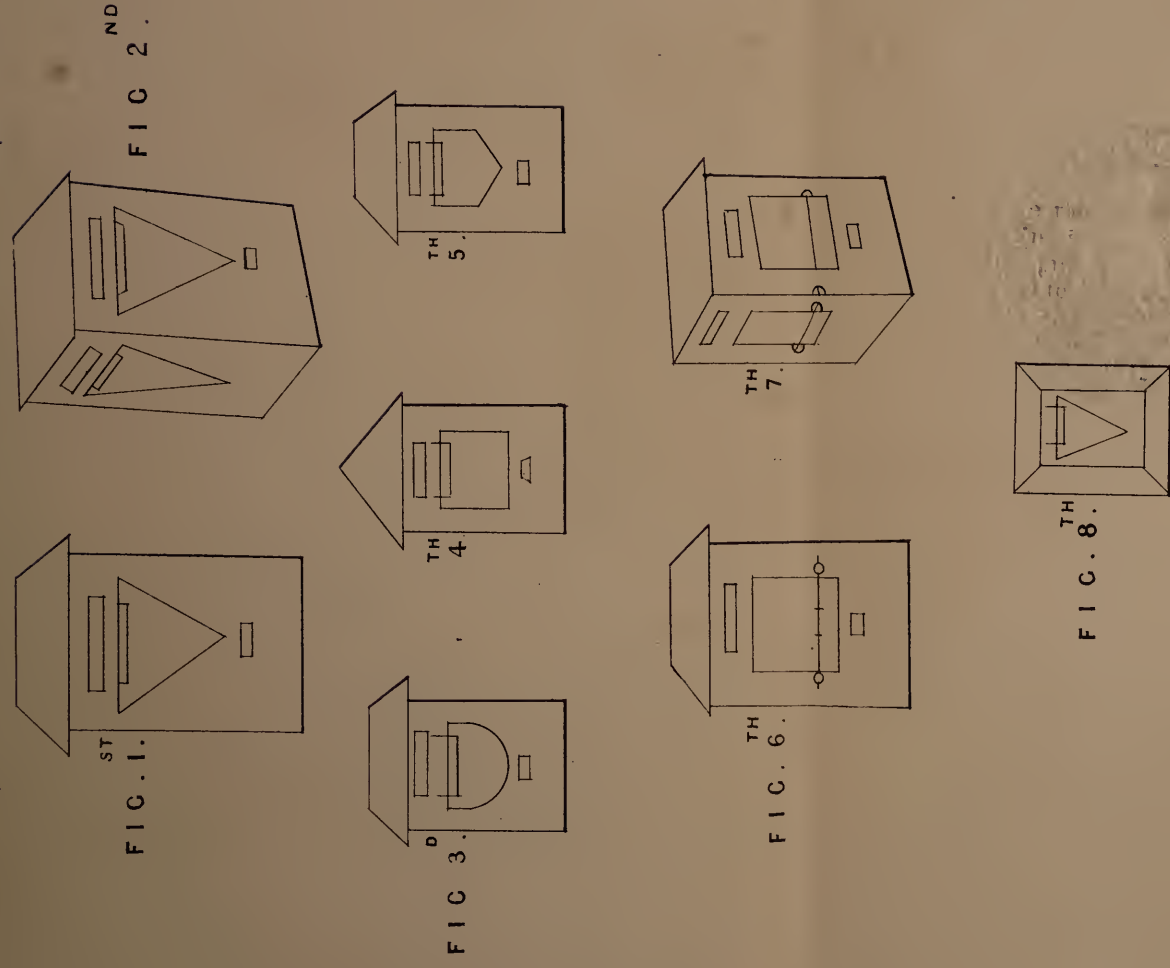
ORTON SMITH,

Att^y at Law, Bristol.

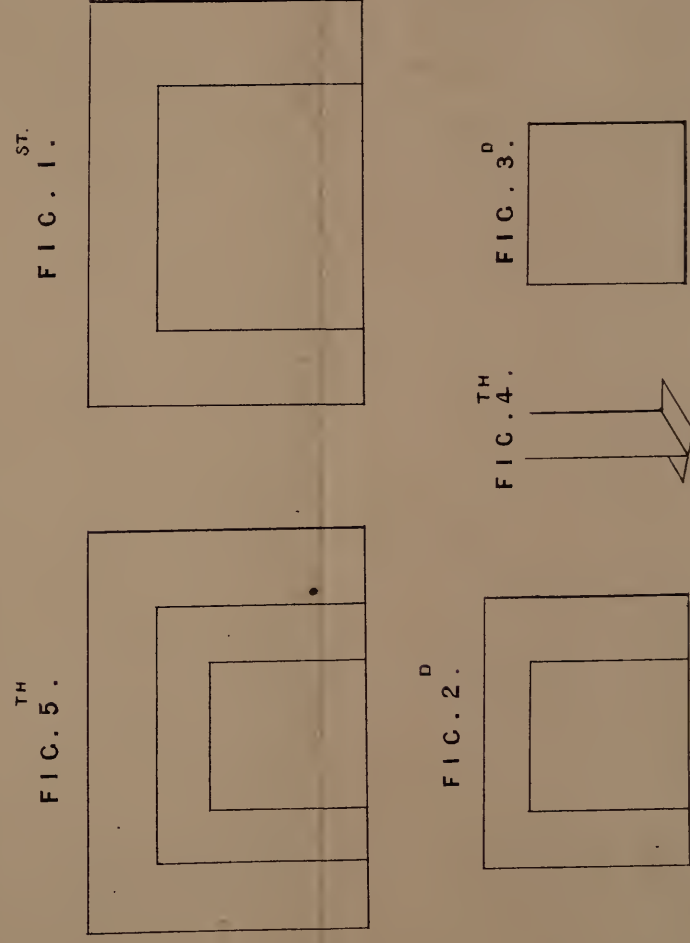
WM JONES,

Clk to Mess^{rs} B. & O. Smith, Bristol.

The Petherons.



Contructors or Concentrators of Air.



The enrolled drawing is partly colored.

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AND BE IT REMEMBERED, that on the same Twenty-eighth day of August, in the year above mentioned, the aforesaid William Pether came before our Lord the King in His Chancery, and acknowledged the Specification aforesaid, and all and everything therein contained, in form above
5 written. And also the Specification aforesaid was stamped according to the tenor of the Statute in that case made and provided.

Inrolled the Twenty-ninth day of August, in the year above written.

LONDON :

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1854

BROOKE SMITH, a Master Ex^{tr}
in Chancery.

